

REMARKS

The applicants appreciate the Examiner's thorough examination of the application and requests reexamination and reconsideration of the application in view of the preceding amendments and the following remarks.

The Examiner indicates that claims 41-42 would be allowable if rewritten in independent form, but rejects claims 22-40 and 43-72 under 35 USC §103(a) as being unpatentable over U.S. Patent No. 5,924,745 to *Campbell* in view of U.S. Patent No. 3,818,948 to *Hedges*.

Claim 22 of the subject application is directed to a foldable member comprising at least a first tube made of layers of material, at least one predetermined hinge area along the length of the first tube, and a plurality of opposing elongated slots in the tube through the layers of material forming separated longitudinal strips of layers of tube material between the slots which fold when subjected to localized buckling forces. The foldable member can be folded and then released, whereupon it returns to its original configuration. See Figs. 1-3 and page 10, lines 1-6 of the subject application.

Campbell, in contrast, does not disclose any strips of tube material designed to fold. Instead, *Campbell*, discloses tubing 10, Fig. 1, for lining a bore hole which includes overlapping slots which permanently expand as shown at 12b, Fig. 1, when a mandrel is passed through the tubing. See Col. 3, lines 9-17 of *Campbell*.

As such, *Campbell* has no disclosure relating to foldable members and actually teaches away from foldable members, since *Campbell* specifically teaches bore hole tubing which would permanently yield if bent and was never meant to be bent in the first place. In short, *Campbell* fails to teach those skilled in the art anything about foldable members.

In general, the design criteria associated with an expandable member is in direct conflict with the design criteria associated with a folding member. For example, compressive strengths

are not a concern in the *Campbell* disclosure since there is no direct load path from one end of the tube to the other because the overlapping slots of *Campbell* interrupt the load path.

In contrast, strips 318 and 320 of foldable member 300, Fig. 22 of the subject application provide a direct load path from one end of the tube to the other.

Also in direct contradiction with the applicant's claimed invention, the tube of *Campbell* cannot be folded because there is material which would yield between the overlapping slots. In contrast, the opposing slots of the applicant's claimed invention are configured such that the material between them can fold without yielding.

Accordingly, *Campbell* fails to disclose a predetermined hinge area along the length of the tube as claimed by the applicant. *Campbell* also fails to teach or suggest opposing elongated slots at all, let alone at the hinge area as claimed by the applicant, since there is no hinge area. The tube of *Campbell* is meant to expand, not fold. Accordingly, there can be no hinge area in the tube of *Campbell*. *Campbell* further fails to teach or suggest longitudinal strips of tube material which fold when subjected to localized buckling forces as claimed by the applicant.

Accordingly, *Campbell* fails to disclose several of the elements of independent claim 22 of the subject application. *Hedges* also fails to disclose these features. Independent claims 30, 50, 52, 58 and 65-71 of the subject application also include these features. Therefore, claims 22-72 of the subject patent application are patentable over the cited references.

Further, it would not have been obvious to one having ordinary skill in the art to modify *Campbell* to include the tube being made of layers of material as taught by *Hedges*. *Campbell* is directed to expandable slotted tubing for lining a bore hole. *Hedges*, on the other hand, is directed to a flexible and foldable conduit for use in duct systems carrying heated or cooled air. See Col. 1, lines 9-13; lines 31-34 and lines 44-50 of *Hedges*. One skilled in the art of

expandable slotted tubing for lining a bore hole would not have been motivated to modify the device with features from a non-structural, highly flexible conduit used in duct systems.

The analysis employed in an obvious-type double patenting determination parallels the guidelines for a 35 USC §103(a) rejection. See MPEP §804 (II)(B)(1).

A critical step in analyzing the patentability of claims pursuant to section 103(a) is casting the mind back to the time of the invention, to consider the thinking of one of ordinary skill in the art, guided only by the prior art references and the then-accepted wisdom in the field ... Close adherence to this methodology is especially important in cases where the very ease with which the invention can be understood may prompt one 'to fall victim to the insidious effect of a hindsight syndrome wherein that which only the invention taught is used against its teacher'." In re Kotzab, 217 F. 3d 1365, 1369, 55 USPQ2d 1313, 1316 (Fed.Cir. 2000), quoting W.L. Gore & Assocs., Inc. v. Garlock, Inc., 721 F.2d 1540, 1553, 220 USPQ 303, 313 (Fed.Cir. 1983).

Identification in the prior art of each individual part claimed is insufficient to defeat patentability of the whole claimed invention. Rather, to establish obviousness based on a combination of the elements disclosed in the prior art, there must be some motivation, suggestion or teaching of the desirability of making the specific combination that was made by the applicant. In re Kotzab, 217 F. 3d 1365, 1370, 55 USPQ2d 1313, 1316 (Fed.Cir. 2000).

The law is further clear that the teaching of the desirability of combining the references must not come from the applicant's invention. "There must be a reason or suggestion in the art for selecting the procedure used, *other* than the knowledge learned from the applicants' disclosure." See In re Dow Chemical Company, 837 F. 2d 469,473, 5 U.S.P.Q.2d 1529, 1532 (Fed. Cir. 1989) (with emphasis added).

Additionally, the Examiner can satisfy the burden of showing obviousness of the combination *only* by showing some *objective teaching* in the prior art or that knowledge

generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references. In re Sang Su Lee, 277 F.3d 1338, 61 USPQ 2d 1430, 1433-44 (Fed. Cir. 2002).

In this case, the Examiner has not, by objective teaching, without benefit of the applicant's claimed invention, established obviousness or that the cited references teach of the desirability of making the specific combination of the applicant's now claimed invention. There is simply no evidence that a flexible duct conduit reference would suggest anything to a designer of bore hole tube liners.

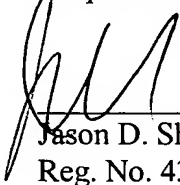
Accordingly, there is no motivation to combine the cited references.

For at least the reasons set forth above, claims 22-72 of the subject application are patentable over the cited references.

Each of the Examiner's rejections has been addressed or traversed. Accordingly, it is respectfully submitted that the application is in condition for allowance. Early and favorable action is respectfully requested.

If for any reason this Response is found to be incomplete, or if at any time it appears that a telephone conference with counsel would help advance prosecution, please telephone the undersigned or his associates, collect in Waltham, Massachusetts, (781)890-5678.

Respectfully submitted,



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